GE ELECTRONICS

7025

TWIN TRIODE

DESCRIPTION AND RATING

The 7025 is a miniature, high-mu, twin triode primarily designed for use in low-level stages of high-gain audio-frequency amplifiers. Use of the 7025 in this application is advantageous because of its low hum output.

GENERAL

ELECTRICAL

Cathode - Coated Unipotential

	Series*	Parallel†	
Heater Voltage, AC or DC . . .	12.6±1.3‡	6.3±0.6‡	Volts
Heater Current†	0.15§	0.3¶	Amperes

Direct Interelectrode Capacitances

	Section 1 With Shield#	Section 1 Without Shield	Section 2 With Shield#	Section 2 Without Shield	
Grid to Plate: (g to p)	1.7	1.7	1.7	1.7	pf
Input: g to (h + k)	1.8	1.6	1.8	1.6	pf
Output: p to (h + k)	1.9	0.46	1.9	0.34	pf

MECHANICAL

Operating Position - Any
Envelope - T-6 1/2, Glass
Base - E9-1, Small Button 9-Pin
Outline Drawing - EIA 6-2

Maximum Diameter. . .	0.875	Inches
Maximum Over-all Length	2.188	Inches
Maximum Seated Height .	1.938	Inches

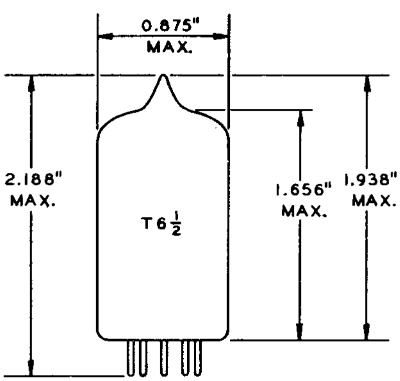
MAXIMUM RATINGS

Design-Maximum ratings are limiting values of operating and environmental conditions applicable to a bogey electron tube of a specified type as defined by its published data and should not be exceeded under the worst probable conditions.

The tube manufacturer chooses these values to provide acceptable serviceability of the tube, making allowance for the effects of changes in operating conditions due to variations in the characteristics of the tube under consideration.

The equipment manufacturer should design so that initially and throughout life no design-maximum value for the intended service is exceeded with a bogey tube under the worst probable operating conditions with respect to supply-voltage variation, equipment component variation, equipment control adjustment, load variation, signal variation, environmental conditions, and variations in the characteristics of all other electron devices in the equipment.

PHYSICAL DIMENSIONS

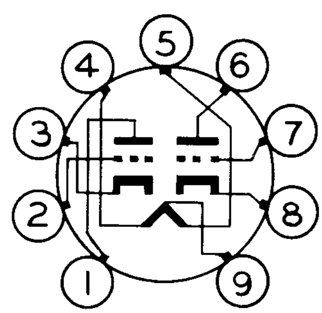


EIA 6-2

TERMINAL CONNECTIONS

Pin 1 - Plate (Section 2)
Pin 2 - Grid (Section 2)
Pin 3 - Cathode (Section 2)
Pin 4 - Heater
Pin 5 - Heater
Pin 6 - Plate (Section 1)
Pin 7 - Grid (Section 1)
Pin 8 - Cathode (Section 1)
Pin 9 - Heater Center-Tap

BASING DIAGRAM



EIA 9A

MAXIMUM RATINGS (Cont'd)

DESIGN-MAXIMUM VALUES, EACH SECTION

Plate Voltage	330	Volts
Positive DC Grid Voltage	0	Volts
Negative DC Grid Voltage	55	Volts
Plate Dissipation, Each Plate	1.2	Watts
Heater-Cathode Voltage		
Heater Positive with Respect to Cathode		
DC Component	100	Volts
Total DC and Peak	200	Volts
Heater Negative with Respect to Cathode		
Total DC and Peak	200	Volts

CHARACTERISTICS AND TYPICAL OPERATION

CLASS A_1 AMPLIFIER, EACH SECTION

Plate Voltage	100	250	Volts
Grid Voltage	-1.0	-2.0	Volts
Amplification Factor	100	100	
Plate Resistance, approximate	80000	62500	Ohms
Transconductance	1250	1600	Micromhos
Plate Current	0.5	1.2	Milliamperes
Equivalent Noise and Hum Voltage, Each Section, average, true RMS∆	---	1.8	Microvolts
Equivalent Noise and Hum Voltage, Each Section, maximum, true RMS¢	---	7.0	Microvolts

NOTES

* Operated with the two sections of the heater connected in series.

† Operated with the two sections of the heater connected in parallel.

‡ The equipment designer should design the equipment so that heater voltage is centered at the specified bogey value, with heater supply variations restricted to maintain heater voltage within the specified tolerance.

§ Heater current of a bogey tube at Ef = 12.6 volts

¶ Heater current of a bogey tube at Ef = 6.3 volts.

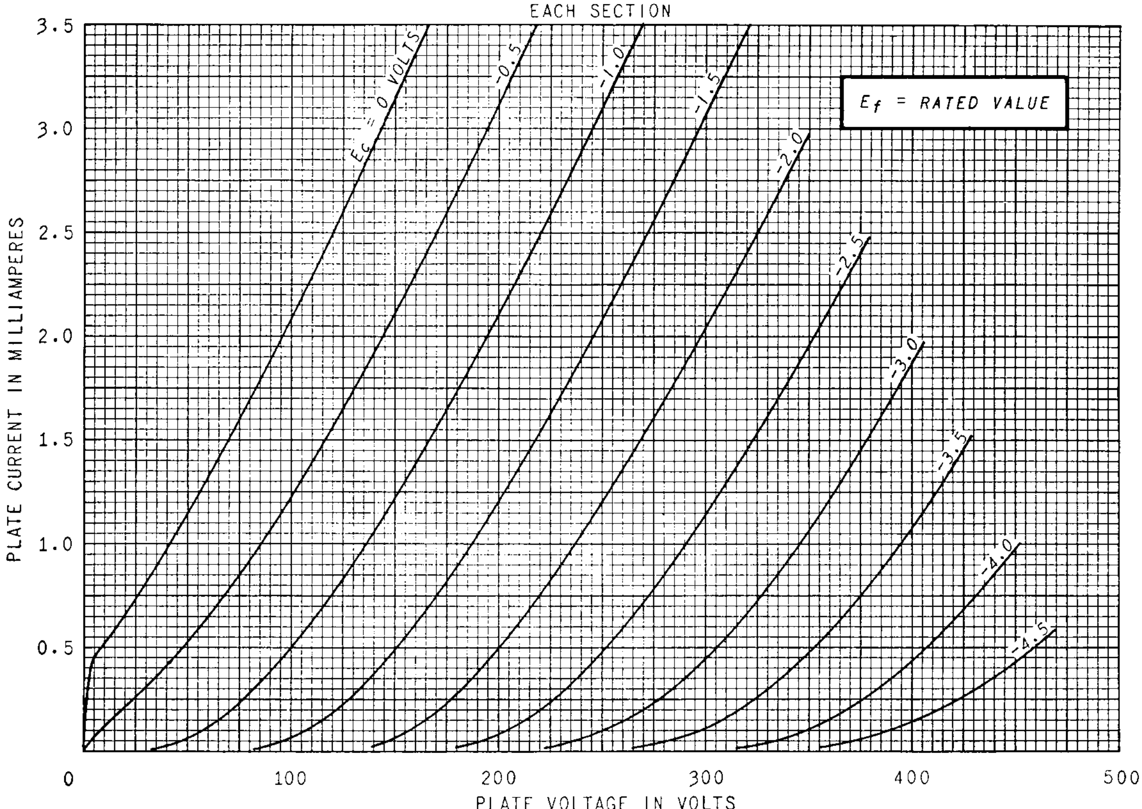
With external shield (EIA 315) connected to cathode.

∆ Referred to grid and measured under the following conditions:
Ef = 6.3 volts AC (parallel connection), CT of heater transformer grounded; Ebb = 250 volts; Rb = 100,000 ohms; Rk = 2700 ohms, bypassed with 100µf; Rg = 0 ohms; Amplifier frequency range = 25 to 10,000 cps.

¢ Referred to grid and measured under the following conditions:
Ef = 6.3 volts AC (parallel connection), CT of heater transformer grounded; Ebb = 250 volts; Rb = 100,000 ohms; Rk = 2700 ohms, unbypassed; Rg = 50,000 ohms; Amplifier frequency range = 25 to 10,000 cps.

AVERAGE PLATE CHARACTERISTICS

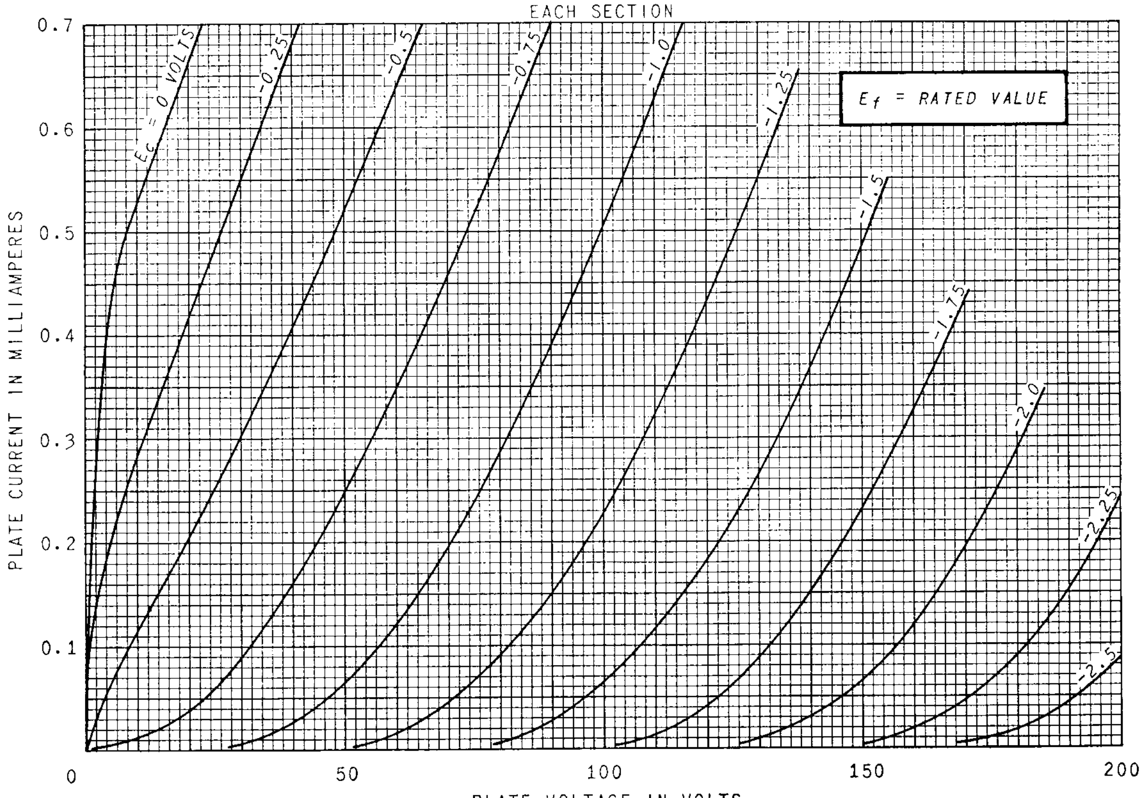
EACH SECTION



K-55611-TD50-1 OCTOBER 2, 1958

AVERAGE PLATE CHARACTERISTICS

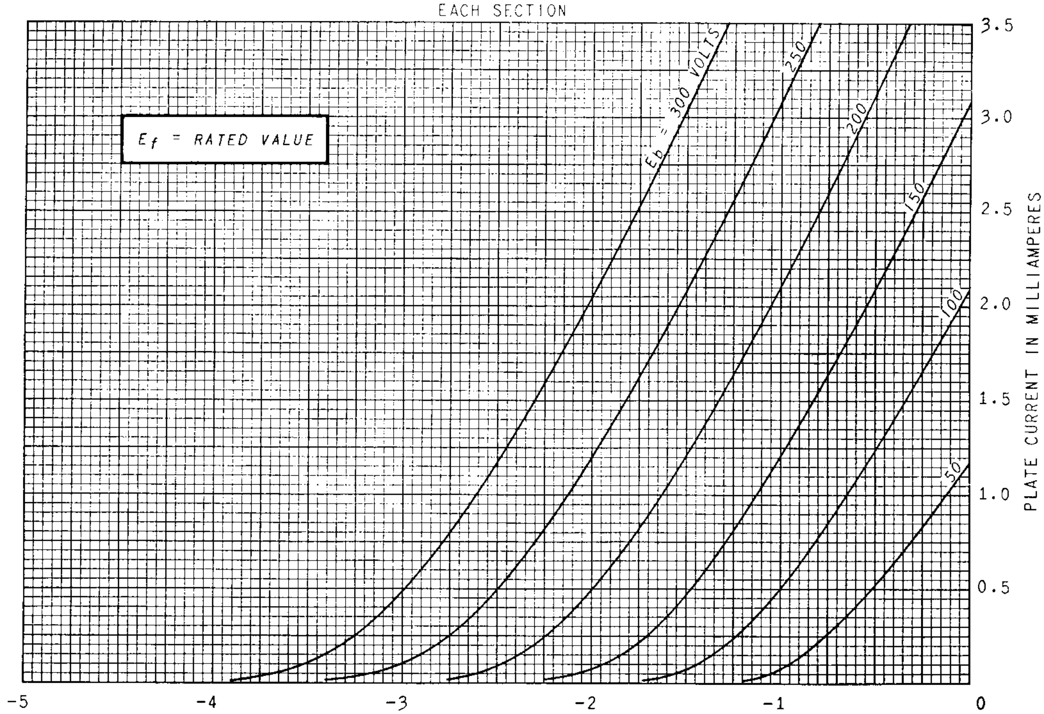
EACH SECTION



K-55611-TD50-2 OCTOBER 2, 1958

AVERAGE TRANSFER CHARACTERISTICS

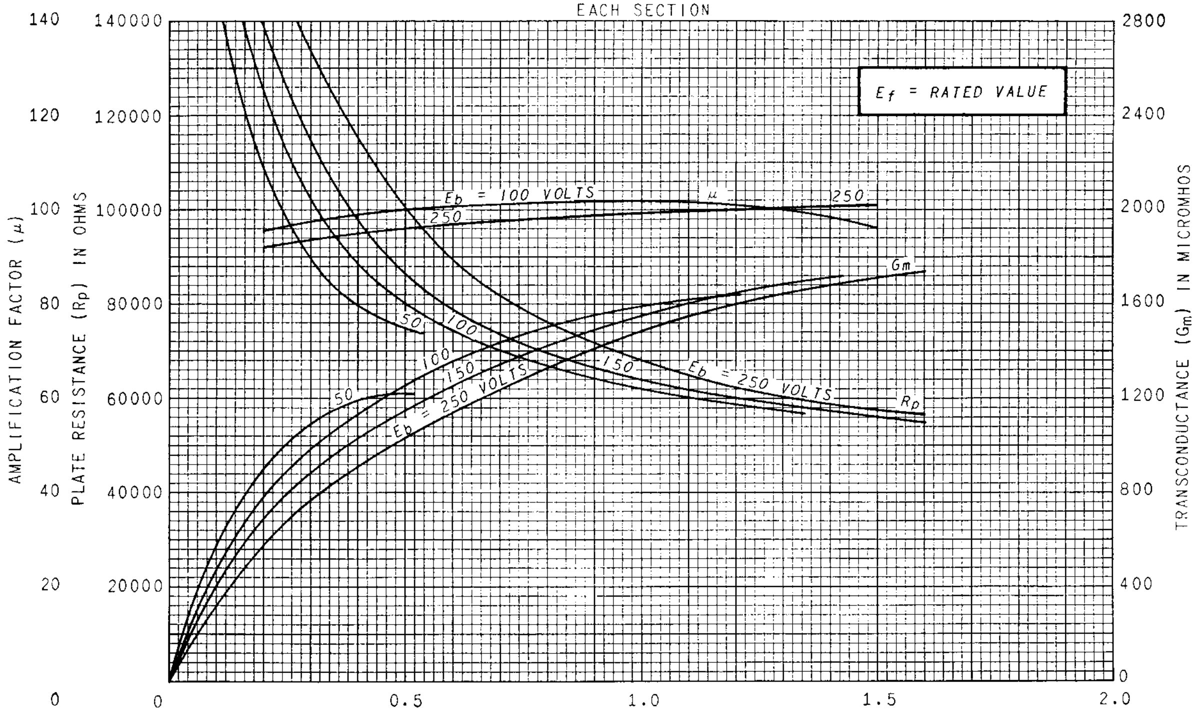
EACH SECTION



K-55611-TD50-3 OCTOBER 2, 1958

AVERAGE CHARACTERISTICS

EACH SECTION



K-55611-TD50-4 OCTOBER 2, 1958